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Nass et al.

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(54) ACTUATING DEVICE

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(58) Field of Classification Search

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(56) References Cited

U.S. PATENT DOCUMENTS

(Continued)

FOREIGN PATENT DOCUMENTS

DE 43 27 782 A1 3/1994 DE 10 2004 052 599 A1 5/2006 (Continued)

OTHER PUBLICATIONS

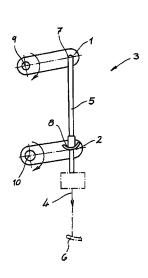
International Search Report for corresponding patent application No. PCT/DE2012/000561 dated Nov. 7, 2012.

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(57) ABSTRACT

The invention relates to an actuating device for joint action upon at least two different elements of a motor vehicle door lock, with at least one sheathed cable having a core and sheath, wherein the sheathed cable is provided in the longitudinal extent thereof with at least two force transmission units which are designed for interaction with a first element at one end and with a second element at the other end upon action on the sheathed cable, and one of the two elements is designed as an actuating lever, wherein the other element is a closing/opening element operating on a locking mechanism.

14 Claims, 2 Drawing Sheets



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